

Mission Fire Department



Firefighter Entry Level Examination Study Guide



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OVERVIEW

One of the first steps toward becoming a Firefighter for the City of Mission is taking and passing a written examination. This examination study guide was written specifically to assist you with test preparation, with understanding the different components of the written examination, as well as providing helpful hints on test taking, and lastly, to provide you with sample exam questions.

The Entrance Exam for Firefighter measures the basic skills necessary to perform successfully as a Firefighter. The test covers four areas: (1) math skills, (2) reading comprehension skills, (3) spelling and vocabulary skills, and ability to understand logical sequences.

Upon arrival to take the written test, applicants will need to allot up to three (3) hours of time for the examination. Dress appropriately and comfortably; business attire is not required. You may want to dress in layers in the event the test room is too warm or too cold.

It is important to follow oral and written instructions that are given to you prior to and during the examination. Failure to follow test day instructions can be detrimental to your final score and you could be disqualified for failure to follow instructions. It is therefore, important to ask the examination administrator for assistance if you do not understand any of the instructions. It is each test taker's responsibility to manage their time.

Scratch paper will be provided, but otherwise, examinees will not be allowed to utilize items of assistance, including, but not limited to, cell phones, PDA's, calculators, dictionaries or any other aid.

EXAM TIME LIMIT

The examination is designed to provide a maximum of three (3) hours to take the exam. It is in the exam taker's best interest to answer all of the questions. If you do not know the answer to a question, you should consider skipping it and return to that question later. As the exam time concludes, be sure you have answered all of the questions. If you have some extra time at the end of the exam, you should review your answers and be sure to answer any questions you skipped.

It is definitely an advantage to answer all of the exam questions. If you are not sure which answer is correct, eliminate choices you feel certain are wrong. If you can narrow the number of possible correct choices, you increase your chances of answering the question correctly.

HONOR/INTEGRITY

Cheating on exams will not be tolerated. No exceptions. Applicants will be asked to leave the room immediately or disqualified at a later date.

GENERAL POLICIES

- **The testing room will close promptly at the start of the examination.**
- Photo identification is required for testing.
- Snacks or drinks are prohibited in the testing area.
- No late arrivals. The testing room is closed when the examination begins.
- Cell phones and other electronics are not allowed in the examination room. Please secure them prior to entering the test site.
- Test materials are to remain within the examination room.
- Books, notes and any other test aids not approved by the examination administrator shall be removed from the room.
- Appropriate testing accommodations are available for those with documentation of special needs. If special accommodations are required, contact the City of Mission Human Resources Department as soon as possible.
- Individuals may not be accompanied by anyone while testing.
- Exam takers are responsible for adherence to test instructions.
- Coats, hats, purses, book bags and other personal belongings are discouraged to in the testing room.

TIPS ON TESTING ANXIETY

Try and eat healthy meals and snacks. Avoid junk food. A good night's rest the night before is essential and an appropriate meal before the exam will help with hunger pains and noisy stomachs.

Familiarize yourself with the examination site location (Mission Event Center located at 200 N. Shary Road, Mission, Texas 78572) and where the parking is. Internet maps (Google, Yahoo, MapQuest, etc.) provide a great source to pinpoint the exam site.

Most importantly, don't be late for the examination. Even if you are not a typical "early arrival person," strive to be early (at least one-half hour) the day of the examination. The extra downtime before the exam may help settle testing anxiety.

DAY OF THE EXAM

Arrive at least thirty minutes early on the day of the exam. Applicants who are late will be denied permission to take the exam. It is absolutely critical to bring photo identification such as a driver's license or other official picture identification. If you fail to bring official government identification, you will not be permitted to test. Comfortable, casual attire is recommended as the written exam is designed to take up to three (3) hours. The City of Mission will provide all necessary supplies, such as scratch paper and pencils. You are again reminded that you are not allowed to bring in any paper, books, notes, cell phones, PDA's, other any other items of assistance.

WHAT IS ON THE EXAM

The exam consists of five (5) different types of questions:

- Reading Comprehension
- Mathematics
- Logical Sequence
- Spelling
- Vocabulary

HOW THE EXAM IS SCORED (Scantron)

The exam is 100 multiple choice question, with four (A, B, C, or D) possible answer choices. The exam is graded on the number of correct answers. You should not leave any answers blank. Any unanswered question is automatically counted as wrong.

Each exam taker is provided an examination booklet that is designed to write directly in. Each question has a short (answer" space/line) directly in front of the question. Please make sure that you fill in either A, B, C, or D for each answer. A good tip is to erase as few times as possible; however, if it is necessary to change your answer, erase carefully and completely. There should only be one answer bubbled in for each question.

As previously stated, if you do not know the answer to a question, you should consider skipping it and return to that question later. As the exam time concludes, be sure you have answered all of the questions. It is better to guess at an answer than to leave it blank. If you have some extra time at the end of the exam, you should review your answers and be sure to answer any questions you skipped.

Each correct response will receive one point. The highest possible raw score is 100. Applicants must make a minimum of 70% to successfully pass the examination.

Math Skills

In the math portion of the exam, examinees are provided with situations that require the use of basic arithmetic. Examinees will be required to read a word problem, apply the appropriate arithmetic operations, and then select the correct multiple-choice answer.

Sample questions

1. At a warehouse fire, 500 feet of additional 5" supply fire hose was extended back from Engine 46 (who was pumping at the fire) to the hydrant. In doing so, Firefighter Peel pulled 150 feet, then Firefighter Lombardi pulled 250 feet, and finally, Firefighter Taylor pulled the last 100 feet to finish the task. What percentage of hose did each firefighter pull to the hydrant?

_____ A. Firefighter Peel - 35%
Firefighter Lombardi - 40%
Firefighter Taylor – 25%

_____ B. Firefighter Peel – 30%
Firefighter Lombardi - 50%
Firefighter Taylor - 20%

_____ C. Firefighter Peel – 25%
Firefighter Lombardi - 60%
Firefighter Taylor – 15%

_____ D. Firefighter Peel – 20%
Firefighter Lombardi - 70%
Firefighter Taylor – 10%

2. If gas costs \$3.29 per gallon and you purchase 6.5 gallons, how much money will you spend?

_____ A. \$21.38
_____ B. \$27.19
_____ C. \$21.59
_____ D. \$12.49

3. There are five sections of 100' of wildland hose and 11 sections of 50' structural hose that is being tested. During hose testing, 3 sections of structural hose rupture. What is the total amount of wildland hose that failed the test??

_____ A. 0 feet
_____ B. 150 feet
_____ C. 300 feet
_____ D. 1050 feet

Math Skills (continued)

4. If a fire apparatus bay is 67 feet long and the fire apparatus is 34 feet long, how many feet is left over in the bay?

_____ A. 16 feet
_____ B. 34 feet
_____ C. 33 feet
_____ D. 101 feet

5. If Ladder 34 gets 4 miles per gallon of diesel, and Ladder 34 drives 76 miles, how many gallons of diesel will Ladder 34 use? Round to the nearest whole number.

_____ A. 22 gallons
_____ B. 20 gallons
_____ C. 21 gallons
_____ D. 19 gallons

6. In the following number, which number after the decimal represents a thousandth?

.3256841

_____ A. 5
_____ B. 6
_____ C. 2
_____ D. 8

7. $8\frac{1}{3} - 5\frac{5}{6} = X$. Which of the following equals X?

_____ A. $2\frac{1}{2}$
_____ B. $4\frac{1}{4}$
_____ C. $4\frac{1}{6}$
_____ D. $2\frac{1}{3}$

8. $5 \times \frac{1}{2} \times \frac{5}{7} = X$. Which of the following equals X?

_____ A. $3\frac{2}{7}$
_____ B. $2\frac{1}{4}$
_____ C. $1\frac{11}{14}$
_____ D. $5\frac{3}{7}$

Math Skills (continued)

9. Calculate the following equation: Eight vehicles set out to drive to a destination that is 50 miles away. Only seven vehicles complete the trip and the eighth vehicle only completed 50% of the journey. What are the total miles that all eight vehicles drove?

- A. 375
- B. 225
- C. 900
- D. 450

Reading Comprehension Skills

In the reading comprehension portion of the exam, examinees will read passages relating to the fire service and will then answer questions based on these passages. No prior knowledge of the fire service or firefighting will be needed to answer the questions. All the information needed to answer the questions will be provided in the passage. The passages in the exam are not intended to represent actual scenarios. The passages relate to either general scenarios or firefighting type scenarios which require no firefighting experience.

Sample questions

Read the sample passage below and then answer the sample questions. An example of each type of question is provided.

Questions 1 - 4 are based on the following passage:

At a hazardous materials incident, personnel may enter the “hot zone” where contamination is likely to occur, for several reasons, including the need for sampling the material, cleanup, or spill control measures. The boundary lines for the hot zone should be clearly delineated by hazard tape, signs, or rope. It may be appropriate to have more than one access control point per zone so that there are separate entrance and exit points. All personnel within the hot zone should wear the level of protective equipment the incident commander has determined to be appropriate. Differing levels of protection may be appropriate in the same area, depending on the specific task being performed.

1. Who determines the level of protective equipment needed at a particular incident??

- A. The firefighter.
- B. The fire captain.
- C. The Incident Commander.
- D. The Incident Inspector.

2. As described in the passage, personnel in a hot zone may wear different levels of protection because of which of the following?

- A. Their experience at hazardous materials incidents.
- B. Their level of contamination in their assigned areas.
- C. Their job assignment.
- D. Their resistance to negative effects of materials.

3. What is a possible consequence of entering a hot zone?

- A. Thermal exposure.
- B. Contamination
- C. Overheating
- D. Infestation

4. Which of the following is a reason listed for entering a hot zone?

- A. Reconnoitering
- B. Material dispersion.
- C. Preventing exposure.
- D. Controlling the spill.

Reading Comprehension Skills (continued)

Questions 5 - 6 are based on the following passage:

The firefighter's carry is useful for quickly moving a person from a dangerous situation such as a fire. The advantage of this carry is that it leaves one of your hands free while you move the victim. This method can be used with both conscious and unconscious victims. The disadvantages are that you may need help to position the victim across your shoulders, and that the technique is not appropriate for victims of major trauma. It should not be used for a victim with suspected head, spine or abdominal injury, since the victim's body is twisted, the head is not supported, and the victim's abdomen bears the weight.

5. The firefighter's carry involves draping a victim over your shoulder(s). One disadvantage of this method is which of the following?
- A. It may only be used at fire scenes.
 - B. The firefighter's hands are fully occupied.
 - C. An additional firefighter may require help to position the victim.
 - D. It is a slow method for moving a victim.
6. Which of the following victims should **not** be moved using a firefighter's carry?
- A. An unconscious woman with a broken wrist.
 - B. An unconscious man with a spinal injury.
 - C. A conscious woman with minor burns, abrasions, and bruising.
 - D. A conscious man with a shallow puncture wound to the hip.

Language Skills (Vocabulary & Spelling)

In the language skills portion of the exam, examinees are required to identify errors in grammar, punctuation, or spelling. There are two types of questions presented in this section. The first type presents incomplete sentences and the examinee must choose the alternative that best completes the sentence. The second type presents sentences that contain a spelling error and the examinee must choose the alternative that contains the misspelled word.

Sample questions

1. In the past year, the fire department handled thousands of calls for service. During that time, Engine 8 _____ over 1,800 of the fire calls.

____ A. received
____ B. recieved
____ C. receved
____ D. recievd
2. During an 8-hour shift, Dispatcher Jones' stats indicated that she made five personal phone _____.

____ A. call's
____ B. calls
____ C. calls'
____ D. None of the above are correct.
3. All firefighters really must have high regard for their own personal appearance because firefighters are public figures and are being observed by a perponderance of people in the public. Which word in the above sentence is misspelled?

____ A. perponderance
____ B. observed
____ C. because
____ D. appearance
4. Paramedic Valarie Smith and her partner Victor Pacheco were dispatched to an injured party, where they found an unconscious person stabbed in the back. Because there were several _____ lying next to the victim, they were confident that they also determined the mechanism of injury.

____ A. knives
____ B. knives
____ C. knife
____ D. knive's
5. During _____ time in the fire service, Engine 82 was an excellent response vehicle as it lasted for over 17 years.

____ A. its
____ B. it's
____ C. it'es
____ D. it

Logical Sequence (Logical Reasoning) Skills

In the logical sequence skills portion of the exam, examinees will be provided with different series of letters, words, symbols, events, etc. This section tests examinee's ability to think logically and analytically. Examinees are required to assemble the data in a logical or meaningful order.

Sample questions

1. Arrange the following words in a meaningful order:

1. Death 2. Marriage 3. Education 4. Birth 5. Funeral

- A. 5,1,2,3,4
- B. 4,2,3,1,5
- C. 4,3,2,5,1
- D. 4,3,2,1,5

2. Arrange the following words in a meaningful order:

1. House 2. Street 3. Room 4. County 5. City

- A. 3,2,1,4,5
- B. 3,1,4,2,5
- C. 3,1,2,4,5
- D. 3,1,2,5,4

3. What number should come next?

42, 40, 36, 30, 22, _

- A. 8
- B. 16
- C. 10
- D. 12

4. What is the missing letter in this series?

Q P ___ N M

- A. Q
- B. O
- C. R
- D. S

Entrance Exam Study Guide Answer Key

Math Skills

- #1 B
- #2 A
- #3 A
- #4 C
- #5 D
- #6 A
- #7 A
- #8 C
- #9 A

Reading Comprehension Skills

- #1 C
- #2 C
- #3 B
- #4 D
- #5 C
- #6 B

Language Skills

- #1 A
- #2 B
- #3 A
- #4 B
- #5 A

Logical Sequence (Logical Reasoning) Skills

- #1 D (First of all a person is born (birth), then takes an education, after is married, then dies (death), and then a funeral.)
- #2 D (Someone lives in a room, in a house, on a street, in a city, in a county)
- #3 D ($42-2=40$; $40-4=36$, $36-6=30$, $30-8=22$, $22-10=12$)
- #4 B (Reverse order of alphabet. M-N-O-P-Q in reverse)